



CONFIDENTIAL

Ra biological Survey

POL-EPA01-0005191/hr

Confidential Claim Retracted

Authorized by: SL

Date: 6/24/13



9404238

# GAMMA SURVEY

Routine 100 meter measurements in  $\mu\text{R/hr}$ .

Location: DUMPS F+G

Date: 2-27-80

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
R7		7	10	7	6	5	6				
R6		8	7	5	5	6	4	4			
R5			5	4	5	4	5	4			
R4				6	6	5	5	4	6	5	
R3					6	5	4	5	5	6	5
R2				5	4	5	4	4	5	4	6
R1			8	5	5	5	5	6	4	5	

STATISTICAL ANALYSIS

Dump F

All surveyed points are used for statistics (Refer to map for detail).

Readings in UR/hr.

7, 6, 6, 6, 6, 5, 4, 7, 10, 7, 6, 5, 6, 5, 4, 8, 7, 5, 5, 6, 4, 4, 5, 4,  
6, 5, 5, 4, 5, 4, 4, 6, 6, 5, 5, 4, 6, 5, 6, 5, 4, 5, 5, 5, 4.

Population Mean  $\bar{x} = 5.37$

Standard Deviation = 1.23

Uniformity  $\frac{1.23}{5.37} = .229$  or 22.9%\*

Dump G

All surveyed points are used for statistics (Refer to map for detail).

Readings in UR/hr.

4, 5, 5, 6, 5, 4, 4, 5, 4, 5, 4, 6, 8, 5, 5, 5, 5, 5, 4, 6, 4, 5, 8, 5, 6, 4.

Population mean  $\bar{x} = 5.077$

Standard Deviation = 1.09

Uniformity  $\frac{1.09}{5.077} = .21 = 21\%*$

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\*A population is considered uniform provided the standard deviation is less than 35% of that population.

THE ANACONDA COPPER COMPANY

Soil Analysis

Radiological

<u>Site</u>	<u>Date taken</u>	<u>Thorium-230 pCi/gm</u>	<u>Radium-226 pCi/gm</u>	<u>Lead-210 pCi/gm</u>	<u>Uranium-Nat. ug/g</u>
C-Dump R9-C2	12/79	0.12	0.01	4.0	2.70
D-Dump R8-C2	12/79	0.12	0.05	3.0	4.05
E-Dump R8-C5	12/79	0.01	0.10	1.0	1.50
J-Dump R-2	9/17/79	0.53	1.59	2.0	1.02
J-Dump R-4	9/17/79	1.85	0.24	3.0	2.14

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Jackpile Radon Exhalation

<u>Reclamation Site</u>	<u>Date</u>	<u>Radon Flux fci/cm<sup>2</sup>-sec</u>
Dump C	1-30-80	0.367
Dump D	4- 7-80	0.013
Dump E	4-10-80	0.167